Day-16

Control Statement:
--- It is used to control the flow of execution.

Types:

control statement

Conditional / Decisional statement
→ Simple if
→ if else
→ elif
→ Nested if

Looping statement
→ while loop
→ for loop
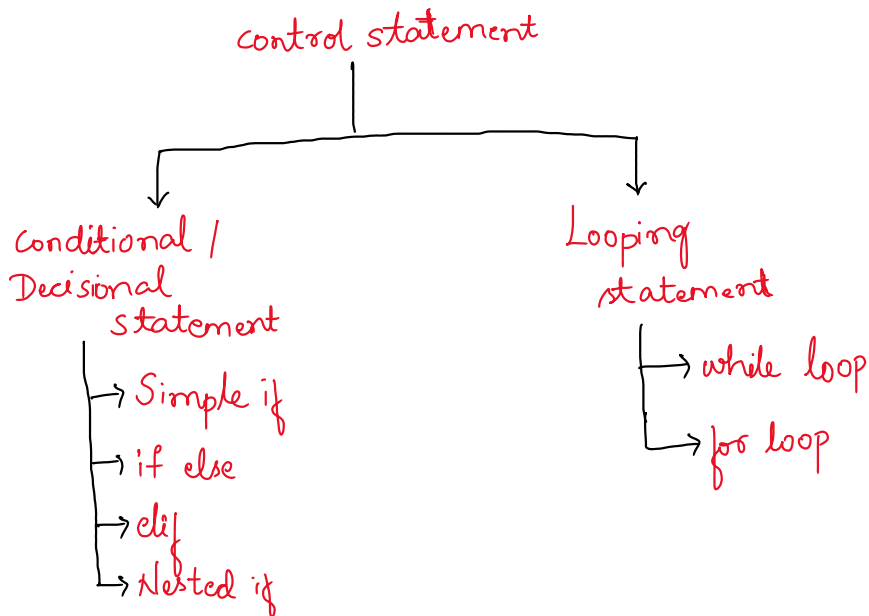
Conditional Statement:
--- It is used to control the flow of execution based on conditions.
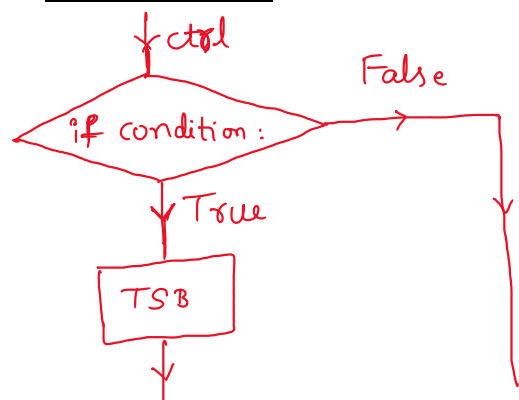
1) Simple if:
--- It is a keyword which is used to check the condition and it will execute the statement block if the condition is True or else it will ignore the statement block.

Syntax:

if condition :
← 1 Tab space →
True Statement block

Flow diagram:

ctrl

if condition :   False

True

TSB
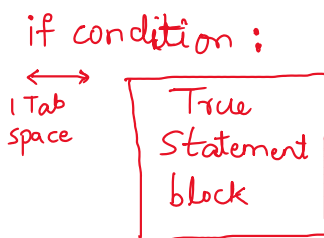
Programs:

Simple if

WAP to check whether the number is even.
'''

```
n = int(input('Enter the number: '))
if  n%2 == 0:
    print('number is even') '''

# WAP to check whether the string has exactly 5 characters in it.
'''
s = input('Enter the string: ')
if len(s)==5:
    print('string has exactly 5 characters in it')'''

# WAP to check whether the number is greater than 200.
'''
n = int(input('Enter the number: '))
if  n>200:
    print('number is greater than 200')'''

# WAP to print the square of the number only if it is multiple of 3.
'''
n = int(input('Enter the number: '))
if  n%3==0:
    print('square of the number is: ',n**2)'''

# WAP to check whether the number is 2 digit number.
'''
n = int(input('Enter the number: '))
if  n>=10 and n<=99:
    print('number is 2 digit number')'''

# WAP to check if the character is Uppercase.
'''
ch = input('Enter a character: ')
if  'A'<= ch <= 'Z':
    print('character is Uppercase')'''
```

2) if else:

--- It is used to check the condition and it will execute the True Statement block if the condition is True else it will execute the False Statement block.
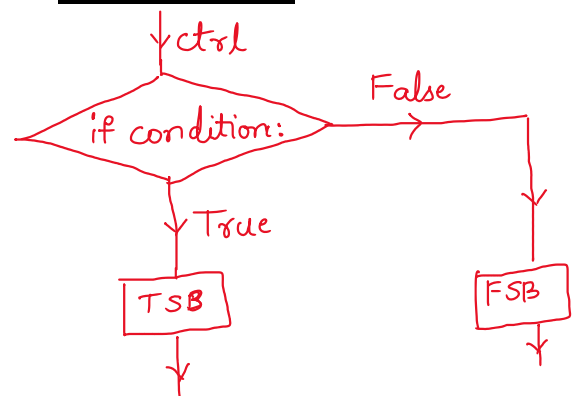
Syntax:

```
if condition :
⟷      TSB

else:
     FSB
```

Flow diagram:

Programs:

```python
# if else

# WAP to check the given data is float or not.
'''
data =  eval(input('Enter the data: '))
if  type(data)==float:
    print('given data is float')
else:
    print('given data is not float')'''


# WAP to check whether the string is palindrome or not.
'''
s = input('Enter the string: ')
if s==s[::-1]:
    print('string is palindrome')
else:
    print('string is not palindrome')'''

# WAP to check whether the given character is vowel or not.
'''
ch = input('Enter the character: ')
if ch in 'aeiouAEIOU':
    print('given character is vowel')
else:
    print('given character is not vowel')'''


# WAP to check whether the given data is SVDT or not.
'''
data = eval(input('Enter the data: '))
if  type(data) in [int, float, complex, bool]:
    print('given data is SVDT')
else:
    print('given data is not SVDT')'''


# WAP to check whether the given integer is 3 digit number or not.
'''
n = abs(int(input('Enter the number: ')))
if  100<=n<=999:
    print('given integer is 3 digit number')
else:
    print('given integer is not 3 digit number')'''
```

Note:

abs (absolute function) - It will convert the negative numbers into positive numbers. If we already have positive number it will keep as it is.